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EXAMINER
ANDREWS, LEON T

ART UNIT	PAPER NUMBER
2462	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/710,019	JIANG ET AL.
Office Action Summary	Examiner	Art Unit	
	LEON ANDREWS	2462	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 February 2010</u>.

2a) ☒ This action is FINAL.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,3-23 and 25-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,3-23 and 25-27</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   **Claims 1, 3-23 and 25-27** are rejected under 35 U.S.C. 103(a) by Lin et al. (Patent

Number: 5,832,000) in view of Lundby (Patent No.: US 6,856,604 B2) and Arnold (Pub. No.:

US 2003/0224729 A1).

Regarding Claims 1 and 27, Lin et al. discloses a method (Figs. 5, 7) of communicating data

comprising:

     providing a first peer (Fig. 1, base station 116) and a second peer (Fig. 1, SCU 122);

     successively transmitting a first predetermined number of more than one identical copies

of a data block (Fig. 4, 402) with a first transmitter (Fig. 2, transmitter 202) of the first peer;

     receiving at least two of the first predetermined number of identical copies of the data

block (Fig. 4, 402) with a second receiver (Fig. 3, receiver 304) of the second peer;

     combining more than one corrupted received data blocks to form a complete copy of the

data block (Fig. 4, error-tolerant message 422, column 4, line 17) at the second peer,

     transmitting a response to the complete instance of the data block with a second

transmitter of the second peer (reconstruction of the original message with the SCR 122

transmitting the message redundancy, column 4, lines 28-30); and

not transmitting a negative acknowledgement when receiving corrupted received

     data block with the second transmitter of the second peer (operating system of the SCR

122 where the error tolerant message is not adequate for transmitting, column 3, lines 44-50).

Lin et al. fails to disclose transmitting and receiving identical copies of data, and combining corrupted data to form a complete copy of the data.

But, Lundby discloses transmitting identical data to multiple users, column 2, line 4.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Lundby's transmitting and receiving identical data because this would have allowed the base station to make multiple transmissions with the same data content, column 2, lines 1-2.

The combination of Lin et al. and Lundby fails to disclose successively transmitting identical copies of data.

But, Arnold discloses sequentially (successively) transmitted identical data packets, paragraph [0058], page 6, lines 17-20.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Arnold's successively transmitting and identical copies of data because this would have allowed the transmitting of identical data packets sequentially in time, paragraph [0058], page 6, lines 20-21.

Further, the combination of Lin et al. and Arnold fails to disclose corrupted data to form a complete copy of the data

But, Lundby discloses corrupted data to attain the original information, column 5, lines 35-36.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Lundby's combining corrupted data to form a complete copy of the data because this would have enabled the base station to transmit information to a remote station using a format where data was repeated in a packet, column 5, lines 33-35.

Regarding Claim 3, Lin et al. discloses the method of claim 1 further comprising:

successively transmitting a second predetermined number of more than one identical copies of the response with the second transmitter of the second peer.

Lin et al. fails to disclose transmitting identical copies of data.

But, Lundby discloses transmitting identical data to multiple users, column 2, line 4.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Lundby's transmitting identical data because this would have allowed the base station to make multiple transmissions with the same data content, column 2, lines 1-2.

The combination of Lin et al. and Lundby fails to disclose successively transmitting identical copies of data.

But, Arnold discloses sequentially (successively) transmitted identical data packets, paragraph [0058], page 6, lines 17-20.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to use Arnold's successively transmitting and identical copies of data

because this would have allowed the transmitting of identical data packets sequentially in time,

paragraph [0058], page 6, lines 20-21.

Regarding Claims 4 and 26, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein the second predetermined number is an odd number (error-tolerant

message comprises forty five elements, column 6, lines 49-51).

Regarding Claim 5, Lin et al. discloses the method of claim 1 wherein successively transmitting

a first predetermined number of more than one identical copies of a data block (Fig. 4, 402) with

a first transmitter (Fig. 2, transmitter 202) of the first peer further comprises:

correctly receiving an expected response of the data block with a first receiver (controller

112 delivers the received messages to the base station 116, column 2, lines 13-15) of the first

peer; and

disabling the successive transmission of the data block (SCR 122 to request

retransmission of portions of corrupted messages that are unrecoverable, column 3, lines 61-65)

of the first transmitter of the first peer.

Lin et al. fails to disclose transmitting identical copies of data.

But, Lundby discloses transmitting identical data to multiple users, column 2, line 4.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to use Lundby's transmitting identical data because this would have

allowed the base station to make multiple transmissions with the same data content, column 2,

lines 1-2.

The combination of Lin et al. and Lundby fails to disclose successively transmitting

identical copies of data.

But, Arnold discloses sequentially (successively) transmitted identical data packets,

paragraph [0058], page 6, lines 17-20.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to use Arnold's successively transmitting and identical copies of data

because this would have allowed the transmitting of identical data packets sequentially in time,

paragraph [0058], page 6, lines 20-21.

Regarding Claims 6 and 15, Lin et al. discloses the transmitting peer (Fig. 1, base station 116)

and method (Figs. 5, 7) wherein the expected response is a positive acknowledgment of the data

block (error-correction algorithm is recursively applied to the original message and subsequent

by-products therefrom, until an error-tolerant message has been generated, column 4, lines 1-4).

Regarding Claims 7 and 16, Lin et al. discloses the transmitting peer (Fig. 1, base station 116)

and method (Figs. 5, 7) wherein the expected response is in a group of possible responding

messages of the data block (group of SCR 122's receiving corrupted messages cannot

successfully reconstruct the received messages, request retransmission of portions of corrupted

messages, column 3, lines 56-62).

Regarding Claim 8, Lin et al. discloses the method of claim 1 wherein said successive

transmitting and said receiving are performed over a dedicated channel (communication links

such as microwave links, column 2, lines 4-5; receiver 304 and antenna 302 are conventional RF

elements which form a receiver circuit for receiving message transmitted by the base station 116,

column 2, lines 36-39) shared only by the first and second peers.

Regarding Claims 9 and 21, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein combining more than one corrupted received data blocks comprises

taking a rounded arithmetic average for each bit (bit error rate after a first application of an error

correction algorithm is 1 bit error for every 10,000 bits, column 3, lines 26-28) of these received

data blocks.

Regarding Claims 10 and 22, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein the number of combined corrupted received data blocks is an odd

number (error-tolerant message comprises forty five elements, column 6, lines 49-51).

Regarding claims 11 and 23, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein the second processor is capable of performing a majority vote for

each bit (combining matrixes and for each of these matrixes are 10 01 -11 10 (with a majority

vote of 1), column 8, lines 34-41) among the received data blocks when combining more than

one corrupted received data blocks, wherein the majority vote means that the combining result of

a bit is equal to the value of the bit that happens more frequently than other values of the bit in

the corrupted received data blocks (second matrix has more than two corrupted groups and the

combining matrixes and for each of these matrixes are 10 01 -11 10 (with a majority vote of 1),

column 8, lines 24-41).

Regarding Claims 12 and 18, Lin et al. discloses the transmitting peer and method wherein the

first predetermined number is an odd number (error-tolerant message comprises forty five

elements, column 6, lines 49-51).

Regarding Claim 13, Lin et al. discloses a transmitting peer (Fig. 1, base station 116) of a

communications system (Fig. 1, communicating system, column 1, lines 47-48) comprising:

a first antenna (Fig. 2, 201) coupled to a second antenna (Fig. 3, 302) of a receiving peer

(Fig. 1, SCU 122) via a transmission medium (communication links such as microwave links,

column 2, lines 4-5);

a first transmitter (Fig. 2, transmitter 202) electrically connected to the first antenna for

transmitting data blocks;

a first receiver (Fig. 2, caller interface for receiving messages from the PSTN 110,

column 2, lines 23-24) electrically connected to the first antenna for receiving a response from

the receiving peer (Fig. 1, SCU 122);

a first processor (Fig. 2, processing system 210) electrically connected to the first

transmitter for controlling the first transmitter to successively transmit a first predetermined

number of more than one identical copies of a data block (Fig. 4, 402) of a data block (Fig. 4,

402) via the first antenna; and

a first power supply (Fig. 1, electrical block diagram of the fixed portion 102 includes the

base stations 116, column 2, lines 19-20) electrically connected to the first transmitter and the

first processor;

wherein the first processor is capable of detecting an expected response (SCR 122 request

retransmission of portions of corrupted messages, column 3, lines 61-62) of the data block at the

first receiver, and accordingly disabling the successive transmission of identical copies of the

data block (information dispersal algorithm applies the error correction algorithm recursively to

the original message and subsequent by-products therefrom until the problems are overcome and

an error-tolerant message has been generated, columns 3 and 4, lines 67 and 1-4 respectively) at

the first transmitter.

Lin et al. fails to disclose transmitting identical copies of data.

But, Lundby discloses transmitting identical data to multiple users, column 2, line 4.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to use Lundby's transmitting identical data because this would have

allowed the base station to make multiple transmissions with the same data content, column 2,

lines 1-2.

The combination of Lin et al. and Lundby fails to disclose successively transmitting identical copies of data.

But, Arnold discloses sequentially (successively) transmitted identical data packets, paragraph [0058], page 6, lines 17-20.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Arnold's successively transmitting and identical copies of data because this would have allowed the transmitting of identical data packets sequentially in time, paragraph [0058], page 6, lines 20-21.

Regarding Claim 14, Lin et al. discloses the transmitting peer of claim 13 wherein the first antenna comprises two sets of antenna units (Fig. 2, RF transmitter 202 coupled to an antenna 201 which together form a transmitter circuit for transmitting received messages, column 2, lines 30-32), one electrically connected to the first transmitter and the other electrically connected to the first receiver (Fig. 3).

Regarding Claims 17 and 20, Lin et al. discloses the transmitting peer (Fig. 1, base station 116) and receiving peer (Fig. 1, SCU 122) wherein the transmission medium is a dedicated channel of electromagnetic waves (Fig. 1, 102 controls a plurality of base stations 116 by way of communication links such as microwave links, column 2, lines 2-5).

Regarding Claim 19, Lin et al. discloses a receiving peer (Fig. 1, SCU 122) of a communications system (Fig. 1, communicating system, column 1, lines 47-48) comprising:

a second antenna (Fig. 3, 302) coupled to a first antenna (Fig. 2, 201) of a transmitting

peer (Fig. 2, transmitter 202) via a transmission medium (communication links such as

microwave links, column 2, lines 4-5);

a second receiver (Fig. 3, receiver 304) electrically connected to the second antenna for

receiving data blocks;

a second processor (Fig. 3, processor 310) electrically connected to the second receiver

for combining more than one data blocks (combination matrix used for reconstructing the

original message and information indicating the number of times the combining matrix is to be

applied to the error-tolerant message for reconstructing the original message, column 7, lines 25-

29) received successively to form a complete copy of the data block; and

a second power supply (Fig. 3, power switch 304) electrically connected to the second

receiver and the second processor; and

a second transmitter (reconstruction of the original message with the SCR 122

transmitting the message redundancy, column 4, lines 28-30), wherein the second transmitter

transmits a response to the transmitting when the second processor (processor 310 used for

controlling the SCR 122, column 2, lines 43-44) forms a complete copy of the data block; and

the second transmitter does not transmit a negative acknowledgement when the second receiver

receives a corrupted data block (operating system of the SCR 122 where the error tolerant

message is not adequate for transmitting, column 3, lines 44-50).

Lin et al. fails to disclose complete copy of the data.

But, Lundby discloses the remote station receive the uncorrupted data (block), column 5, lines 38-40.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Lundby's complete copy of the data because this would have allowed the this would have enabled the base station to transmit information to a remote station using a format where data was repeated in a packet, column 5, lines 33-35.

The combination of Lin et al. and Lundby fails to disclose successively transmitting identical copies of data.

But, Arnold discloses sequentially (successively) transmitted identical data packets, paragraph [0058], page 6, lines 17-20.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Arnold's successively transmitting and identical copies of data because this would have allowed the transmitting of identical data packets sequentially in time, paragraph [0058], page 6, lines 20-21.

Regarding Claim 25, Lin et al. discloses the receiving peer of claim 19 wherein the second transmitter is capable of successively transmitting a second predetermined number (Fig. 4, 406) of more than one identical copies of the response.

Lin et al. fails to disclose transmitting identical copies of data.

But, Lundby discloses transmitting identical data to multiple users, column 2, line 4.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to use Lundby's transmitting identical data because this would have

allowed the base station to make multiple transmissions with the same data content, column 2,

lines 1-2.

The combination of Lin et al. and Lundby fails to disclose successively transmitting

identical copies of data.

But, Arnold discloses sequentially (successively) transmitted identical data packets,

paragraph [0058], page 6, lines 17-20.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to use Arnold's successively transmitting and identical copies of data

because this would have allowed the transmitting of identical data packets sequentially in time,

paragraph [0058], page 6, lines 20-21.

Response to Arguments

2.   Applicant's arguments filed February 8, 2010 have been considered as follows:

-       In the remarks on pages 8-9 of the amendment, applicant contends that Lin et

        al., Lundby or Arnold does not disclose: (1) not transmitting a negative

        acknowledgement when receiving corrupted received data block with the

        second transmitter of the second peer. (2) wherein the first processor is

        capable of detecting an expected response of the data block at the first

receiver, and accordingly disabling the successive transmission of identical

copies of the data block at the first transmitter. (3) wherein the second

transmitter transmits a response to the transmitting peer when the second

processor forms a complete copy of the data block.

- The examiner respectfully (1) not transmitting a negative acknowledgement

when receiving corrupted received data block with the second transmitter of

the second peer (operating system of the SCR 122 where the error tolerant

message is not adequate for transmitting, column 3, lines 44-50). (2)

examiner maintains the prior prosecution of the claim limitation, and with

clarification states that SCR 122 request retransmission of portions of

corrupted messages and information dispersal algorithm applies the error

correction algorithm recursively to the original message and subsequent by-

products therefrom until the problems are overcome and an error-tolerant

message has been generated, but the information dispersal algorithm is not

adequate for transmitting the messages, columns 3 and 4, lines 47-67 and 1-4.

(3) wherein the second transmitter transmits a response to the transmitting

peer when the second processor forms (processor 310 used for controlling the

SCR 122, column 2, lines 43-44) a complete copy of the data block

(reconstruction of the original message with the SCR 122 transmitting the

message redundancy, column 4, lines 28-30).

Conclusion

3.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The

examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LA/la
May 5, 2010

/Kevin C. Harper/

Primary Examiner, Art Unit 2462